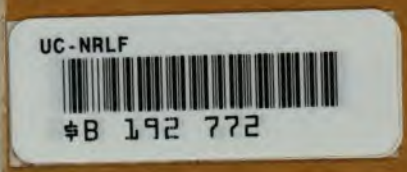

# The Educational Value of Museums

Newark Museum Association

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# Introduction

We should try to develop, here in Newark, a group of museums, in the fields of art, science and industry, of the modern type. Our Newark museums, that is, should be of immediate practical value to Newark citizens, old and young. They should appeal to all of us, to the newer people as well as the older. They should reflect our industries, be stimulating and helpful to our workers, and promote an interest here and elsewhere in the products of our own shops. They should be the handmaidens of our schools, helping to discover among our thousands of young people those tastes and talents which may lead them to such accomplishments as will bring profit, credit and civility to our city. Our museums should do these things in all the fields they touch: in fine art, in the applied arts, in industry, in the mere making of honest goods which is itself a fine art, and in pure and applied science.

In thus describing in broad terms the kinds of museums we should try to create here, I speak with considerable assurance. But, while we who are daily at work upon our very modest museum beginnings feel quite sure that we know in a general way toward what end we should proceed, we find it difficult to discover the details with which we may most wisely first concern ourselves. This difficulty was most keenly felt when we faced, a year ago, the fact that our collections and cases were growing very rapidly, that we had one more small room only into which we could expand and that we must there, so far as possible, suggest to the public the character of the work we believe the association should take up as it grows and expands in later years—the work, that is, which lies outside and beyond

the obviously proper fields of sculpture, painting, pure and applied science, already outlined briefly but plainly by our very small permanent exhibits.

Much study and many discussions had led us, as I have said, to certain general conclusions as to the proper treatment of this last available space. But we lacked assurance in details, just as we lacked assurance concerning the details of the whole scheme of modern, live, popular, teaching and inspiring museums which we had long before agreed should be the aim of this association.

At this crisis I was fortunately able to send Miss Louise Connolly, educational expert of the Free Public Library, on a tour of inspection of some fifteen or twenty of the museums of the country, and to get from her a report on the very questions we were facing.

Miss Connolly, while not a specialist in any branch of art or science or industry, has knowledge of scholarly quality in all three, and of considerable depth in the last two, having taken two degrees in science, worked as a student in the National Museums, and assisted the late Dr. Henry Gannett in the writing of his Commercial Geography. She has also been for years a teacher and superintendent in the public schools of New Jersey. And she was trained under the late W. B. Powell, Superintendent of the Washington Schools, in such employment of museums and government agencies for the education of the young as has probably never been duplicated in America. For the purpose of this inquiry, the close relations of the museums and the Public Library enabled us to obtain Miss Connolly's services for an investigation into what modern museums are preaching and practising as to their educational functions.

Miss Connolly read the Directory of American Museums, and marked the names of 82 museums which seemed likely to yield profit along the line of our inquiry. To these she wrote, asking for information, either through printed matter or by letter, on the special features of their educational activities. To these queries she received in reply 74 letters and 130 printed documents of more or less relevance. These she read, marking passages of interest, and from the study of these and other sources of information was made a tentative itinerary, later revised and expanded.

She visited first, the Metropolitan Museum of Art, the New York Zoological Park, the American Museum of Natural History, the Aquarium, the Children's Museum in Bedford Park, Brooklyn, the Museum of the Brooklyn Academy of Arts and Sciences, the Industrial Museum of Cooper Union, and the museum collected by the New Jersey Department of Education at Trenton.

Then she took a short eastern trip including, in Boston, the Museum of Fine Arts, the Museum of Natural History and the Children's Museum; in Worcester, the Art Museum, the Museum of the Natural History Association, and the Children's Museum of Clark University; in Providence, the Roger Williams Park Museums; in Washington, D. C., the Smithsonian, and its Children's Room, the National Museum, including the departments of geology, biology and ethnology, and the Bureau of Education; in Philadelphia, the Academy of Fine Arts Museum, its Alumni Club, the Commercial Department of the Philadelphia Museums, the Museum of the Academy of Natural Sciences, and the Wagner Free Institute of Sciences. She already knew fairly well the work of the Museum in Fairmount Park and that of the Drexel Institute.

On this trip, with a narrower view of the field to be covered than was later obtained, agencies other than museums were only incidentally included. But, even so, some investigation was made of library and school relations in New York and Brooklyn; the Boston Library, a girls' manual training school in Worcester, the Providence Library, and the Carnegie Library of Washington were seen; extramural school activities in Washington were investigated; the librarian in Philadelphia, and three of his librarians and the Secretary of the Alumni Club in Philadelphia were interviewed. This trip consumed eight days, from September 29 to October 6 inclusive.

The western trip included: In Detroit, the Art Museum, the office of the Superintendent of Schools, the Public Library, and a visit to the site of the future Fine Arts Centre; in Toledo, the Museum of Art, the Library, and the Superintendent of Schools; in Indianapolis, the Herron Art Institute, the offices of the Art Supervisor, and the Supervisor of Nature Study, a semi-industrial school, and the Public Library; in Richmond, Indiana, the home of Mrs. Johnson, who inaugurated and conducts the museum movement there, the Art Museum, the Supervisor of Public School Art, and the Public Library; in Cincinnati, the Art Museum of the Cincinnati Museum Association, the Art School, the Rookwood Pottery, the Supervisor of Art in the Public Schools, and the Public Library; in Pittsburgh, the Public Library, the Library School, the museums of Art and Science, and two branch libraries.

After her return she visited the Museum of Plainfield, N. J., and the new Art Museum at Montclair.

In all, 65 visits were made, 35 of them to museums, including zoological collections.

Miss Beers, Principal of Elmwood School at Buffalo, had been engaged for several months' work at this museum, and as she had visited Chicago, just previous to coming here, she was asked to report upon both Buffalo and Chicago. St. Louis publishes very full accounts of its work. From these sources, therefore, a fairly intelligent inclusion of St. Louis, Buffalo, and Chicago was made.

If it seems strange that a person could make 65 inspections in 20 days, in which were included 2,500 miles of travel, it must be remembered that this was not a search for details in mounting specimens or in methods of covering walls, or in the best way of displaying jade, or in any other feature of museum administration. Neither was it an attempt to investigate the qualifications of future possible employees. Many things picked up by the way, had they been the object of these tours, would have taken longer to gain in systematic shape. The trained supervisor of any subject perceives certain things about his specialty at once. To quote from one of Miss Connolly's letters written daily to me en route, " I spent, in several places, quadruple the time I needed to discover what I wanted, as a matter of courtesy, or to gain interesting observational by-products."

On her return, she read what other people have had to say, during recent years, on museums. This reading included many magazine articles, the seven volumes of the proceedings of the American Museum Association, recent years of the English Museum Journal and such other general museum literature as is here available in English.

She then wrote a short formal report upon her investigations, addressed to me, which, at my request, she

expanded and made more informal in style, that it might the more readily engage the attention of those not already versed in the subject. I asked her, that is, to furnish us with a report which would be of interest and value, first to us who are trying to work out a theory of educational museums, and next to the general public, and especially to our clientele and supporters, the general public of Newark.

Her report did for us two things. It told us that the conclusions we had drawn from reading, study, and general observations, as to the modern trend in museum development, the conclusions which had led us to agree on the general character which should distinguish Newark's museums—it told us that these conclusions are in harmony with the best modern practice and especially with the wishes, which have in many cases not yet been realized, of the more advanced and approved of museum workers.

It told us also quite definitely how we should develop the plans we had made for our one available room. These plans have been thus developed in accordance with this advice, and partly worked out, with results that seem to prove their correctness.

We have not fulfilled every detail of the suggestions given in the report, partly for lack of space, partly for lack of time, partly for lack of money, and partly because we have wished to move slowly and to keep our minds open to outside suggestions of need or opportunity, in accordance with the advice on p. 59 of this report.

At present we have, in what the Report calls the Northeast Room, the nuclei of several museums, whose method and scope are there plainly defined. A card on the door announces:

Take note that in this room the exhibits tell several interesting stories:

1. The evolution of pottery and textiles from the shredded palm leaf to the Trenton potteries and the Newark looms.

2. The ways in which uncivilized men adapt their homes to their circumstances, and use what they can get to make their livings.

3. How creatures live in the water.

4. How insects serve or injure men, and how cunningly they are adapted to their surroundings.

5. How birds live and travel.

6. How artists use insects, birds and fishes.

These stories, and several others since added, are told: 1. As far as possible, by things; 2. When things cannot be obtained, by pictures; 3. Where neither things nor pictures can serve, by words.

The room is already the haunt of a number of young people who come again and again to pore over its cases. And it attracts parents, teachers, and working men as none of the other collections has ever done.

I quote the conclusion of Miss Connolly's first report:

"In my journeys I have met with much courtesy and kindness from many sources. The great institutions have taken my mission as seriously as though I represented millions of investment, and the small museums have given freely in time and service. And whenever I have mentioned interest in the educational aspects of musum work, I have found my specialty treated as respectfully as though it were Renaissance Paintings or the Agricultural Implements of the Aztecs. From this little experience I am sure that you are safe in believing that there is a great unanimity of sentiment in favor of the conscious educational mission of all

museums, and a warm and practically proven spirit of brotherhood among museum officials. If, in your small beginnings, you need help, advice, loans, or exchanges, you will get them readily and to the limit of the powers of those from whom you solicit by applying to any museum anywhere in the United States.

"Permit me to thank you for sending me on this interesting mission, and for giving me freedom to pursue my inquiries in my own way. I sincerely hope that the museum may profit half as much through this very incomplete report as I have profited from the experiences on which it is based."

The reports of the proceedings of the Association of American Museums have been especially helpful to us in all our inquiries and experiments, and Miss Connolly asks me to add to ours her very special acknowledgments of help therefrom. Mr. Paul M. Rea, of Charleston, S. C., the secretary of the Association, was kind enough to let us have, long before its publication, an advance copy of his Report on the Educational Work of American Museums. From it Miss Connolly drew much help in making her report, and we found it suggestive and stimulating in our work.

J. C. D.

Newark, N. J., November, 1914.

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## Summary of Content

The introduction by another hand obviates the necessity of giving details as to the journeys made; I therefore proceed at once to give the results of these journeys in facts observed and opinions gleaned.

The work called for was a report upon the educational function of American Museums; not with the intent of giving a detailed account of all the educational work of each museum, but for the purpose of finding what is the trend of opinion and practice among progressive institutions and what Newark should do to start wisely.

No one, however predisposed, could take such a trip as this without becoming deeply impressed by the unanimity and energy with which American museums are engaging in active educational work. And the same thing is true of many museums in Europe and in Asia.

The study of the best of this work leads inevitably to the conclusion that Newark should establish, on the foundations already laid, the following:

I. A museum of art, including
   A. Fine art, consisting of
      1. Copies of typical great statues
      2. Copies of typical great paintings
      3. A few specimens of current work in painting and in sculpture
      4. Large numbers of photographs and other cheap reproductions, for lending, by which the history of art, the work of artists and the principles of art can be exemplified.

B. Applied art, consisting of
   1. A general study of applied art
      a. Synopses of the history of art as applied to pottery, textiles, &c., in originals and copies
      b. Synopses of the applied arts of the several nations, eminent in this line
      c. Synopses of the methods used in applying art to different materials and classes of objects
   2. A special study of the applications of art in Newark, with examples from Newark factories and copies of originals, old and modern, from this and other countries, of work in the same field as that from the Newark factories.

II. A museum of science, including
   A. General science, consisting of
      1. A synoptical collection of
         a. minerals
         b. plants
         c. animals

         illustrating very concisely the accepted classifications in each kingdom, and simply labeled. All amplifications of this synopsis to be kept in drawers or closets for use of students; but the synopsis itself to be so simple in extent and in labels as to instruct the most ignorant layman
      2. Collections exemplifying the dynamics of each science, as, for example, the steps whereby mud becomes slate, sand becomes sandstone, the seed

becomes a plant, and the fauna fits itself to its environment

3. Collections showing how man uses his knowledge of nature's laws to modify the products of nature, as in the cultivation of plants, the artificial selection by which new varieties of animals are developed, and the physical and psychic improvement of the human species, as in the prevention and cure of disease, and in physical and intellectual education.

B. Local science, consisting of

1. Collections showing the peculiarities of the geographic unit to which Newark belongs
2. Collections for lending suited to the expressed needs of the schools of Newark, public, parochial, or private; elementary, secondary, or collegiate, as these shall arise.

III. A museum of industry, including

A. General industry, consisting of

1. A synoptical collection showing types of the simple operations underlying the several industries
2. A synoptical collection showing the stages of development by which present processes grew out of these simple operations.

B. Local industry, showing

1. The variety of the industries of Newark and her industrial suburbs
2. The steps or stages in each manufacture, in so far as this is consistent with good business

3. The sources of materials used and the destinations of products
4. The extent of Newark's trade
5. The routes followed by her imports and exports
6. The history of Newark's industrial development.

It will be apparent that there is here no suggestion that these museums shall strive after the wonderful, the costly, or the rare in any of these collections. The fact that there is in Newark an association able to care for such things will doubtless bring them as presents or bequests; but, according to the plan above outlined, they will, on acceptance, be so fitted into the above scheme that they may be used as means of instruction, rather than displayed as matters of astonishment.

Throughout the report emphasis is laid on the advisability of keeping the abilities of the museum staff ahead of the amount of material shown. Already the Newark museum contains more objects than the present corps can handle to best advantage for the instruction of the visitors who now inspect them. And each year this disadvantage will prove a more serious hindrance to the object at present paramount in the minds of museum educators.

# The Report

## Old Museums and New

The study of present day museums leads one to recall the museums of the past. They contained the elements of the types of museums met with to-day.

### The Old Smithsonian and the Old Patent Office

A half century ago visitors to the National Capital used to be shown the Smithsonian. It sat, far removed from man's daily life, on "The Island," as southern Washington was then called, and was approached across a quagmire of red Potomac mud, over which in course of time an insecure plank path gave perilous footing.

Not only was it inaccessible; it was also intensely gloomy, a dark brown castle with forbidding towers, and windows that begrudged the light. Once entered, it was repellent within. It contained many and varied objects symmetrically arranged in cases, and a collection of formidable looking Indian portraits. Children shrank from its portals, and honeymoon travelers felt in leaving it a sense of escape.

Culture for culture's sake was what the Smithsonian meant to its lay visitors. Young people led through it contracted, not the museum habit, but museophobia, a horror of museums.

In the same city, in the Patent Office, visitors gained an experience of another sort. The building is white, being an example of the Greek architecture employed by our forefathers for public buildings, with a row of beautiful Doric columns on its eastern side. Such buildings produce a certain aesthetic pleasure in nearly all who approach them.

The "model room" in this building was, for children, a realm of bliss. In those days an inventor not only wrote a specification and made a drawing, as now; he also caused to be made a model of his invention. And, in many cases in the "Blue Room," were installed wonderful wooden models of all manner of devices. The anxiety of the modern museum curator to cajole the young into attendance forms an amusing contrast to the struggle of the Patent Office watchmen in those days to keep children out! There was a continual skirmish at the eight entrances of the building between the children of the city, besieging the place to study and enjoy these models, and the corps of devoted doorkeepers, defenders of the palace of delight. Here were pygmy harvesters, ploughs, corn huskers, looms, churns, clothes wringers,—lilliputian machines of every description that would certainly "go" if one might lay hands on them.

### Good Museums Waited on Good Teaching

It seems strange that the hint contained in these two contrasting exhibits, and in the very different reactions which they produced in their visitors should not, a generation ago, have led to the inventing of the modern museum.

Perhaps the failure to do this was but part of the general condition of things at a time when there was little knowledge of how any teaching should be done. Smithson's object was "the diffusion of knowledge"; but none knew how to diffuse that commodity with efficiency.

Then came the modern movement in pedagogy. It took off the shackles of dead forms that had trammeled the feet of teachers, and bade them walk. Some do not know to this day that their feet are free; but many are treading with firm step the uphill path that leads to high achievement, just because they know enough to study the child as well as the subject.

To-day when a modern teacher says to a child, "What is a lake?" he expects the child to search through his short experience, recall the memory of the thing corresponding to the word "lake," and, by the means at his command, express the picture in comprehensible terms.

If he says "I kin show you one," or "I kin drawr one," or "It's a little one by the Monument and a big one in Sojer's Home," or "It's made of water and it fills a wide hole," the teacher so questions and encourages him that within a few seconds he achieves an answer, correct in both substance and form.

So we take our children to see the real thing, whatever it may be, and then to the museum where hand specimens of it may be found to remind us of it, and then we reduce our knowledge of it to language, and, finally, we look into books to be reminded by language of our experience-gained knowledge.

The whole city administration in any progressive city is a museum. A class reciting upon the function of courts has seen a court in session. The city itself is a still larger and fuller museum. A class desiring to sketch trees sits in the park or on its school-house doorstep for the lesson. A class in United States history gathers about the statue of Washington. Rivers are studied on a river's brink.

So through their own observation of the response given to their efforts, and through the diffusion of ideas as to how the people should be taught, museums have been slowly led to the revolution which is now going on in their conduct.

### Light Obtained from Museum History

Before the itinerary for this mission was made out, a book was consulted—a book full of romantic interest. Some dramatist or epic poet should draw from it material for his verse. Neither Iliad nor Odyssey was drawn from such a fountain of human experience as is here contained. It would well reward the researches of a Kipling, a Shaw or a Galsworthy. The book is called "A Directory of American Museums" and was published in 1910 by the Buffalo Society of Natural Sciences for the American Association of Museums.

Here one may read, in trenchant statement, how the only son of his parents, as they took him about the world in search of health, collected in his travels specimens of this and that, and on his return from the otherwise fruitless voyage, engaged his weary hours in labeling and placing them; and how, when he left them, the parents enshrined these objects of his last interest in a memorial museum, dedicated to the use of other lads who might take up his interests in the years to come.

And here is told the story of the business man, set free by success from a toil that had engaged his lesser powers, who spent the last years of life in an avocation which his soul knew for its real vocation. And his wife made permanent his achievement by placing a museum in his native town.

And here is the tale of a financial king, who hired a plodding scholar, gave him leave to grub in field or laboratory, and whose name now shines upon a museum façade by virtue of the scientific collection made in his behalf by the modest scientist, who will himself ever be unhonored and unknown.

This book shows plainly that most museums have been founded in the sincere desire to serve the men of the future by preserving for their inspection the things of the past. And no less plainly it shows that the few who felt this desire have usually had to struggle against indifference, misunderstanding, and adversity to achieve their purpose.

For years the trustees of the Newark Museum have been feeling about for a foundation, however narrow, on which to plant the corner stone of their hope that Newark may one day have a group of useful museums as a centre for the instruction of her citizens.

They may well have faith that the institution in their charge, already so gratefully and graciously received by the Newark public and Newark's administration, will grow and flourish and become what they desire far sooner and with far less struggle than have most of the museums whose histories are outlined in this wonderful record.

## Light Obtained from Museum Psychology

### Museums Based on the Hoarding Instinct

The tendency to hoard, merely for the sake of hoarding, antedates humanity. It is common to the squirrel and the magpie. And those who would educate according to the culture epoch theory make provision for the

period of "collections." The boy makes miscellaneous hoardings of string, and top, of knife and ball; boys and girls make stamp collections; in the days of our mothers little girls had strings of buttons and "traded duplicates" as shrewdly as any adult coin collector. The hoarding's the thing, not the value of the hoard.

This tendency to collect is the psychological basis of the museum.

That museums, thus based, are not more common, is due to the fact that the tendency is far from universal. H. G. Wells, in his novel, "Passionate Friends," shows how unwillingly some lads are forced, by external pressure, into accommodation to type in this respect.

#### Museums Based on Exclusive Possession

Of apparently human origin is that desire to own and cherish which has its chief basis in the fact that by its gratification others are prevented from possession. True, food and mate are thus exclusively possessed by some of the lower animals; but rarely anything else. Yet few are willing to gloat in secret over an exclusive possession. The sweetness of ownership can be fully savored only when non-possessing spectators admire. The miser, who hides his hoardings, is an abnormality. This spirit of exclusive possession, widely indulged in some degree, is the second tendency underlying the creation of the museum.

In an art museum within ten miles of one of the world's greatest art collections, is a room devoted to thirty or forty old masters, most of them second-rate works by second-rate men. The curator was asked, "Could the daughter of a moderately successful man,

rising from the ranks and totally unacquainted with art, prepare herself in your gallery for a year's study of paintings in Europe?"

"Well," said he, "she could get some things here; but of course she would also do well to visit the X gallery, since it is so near." "Then," said his questioner, "don't you really think you had better sell these old masters to the X collection and buy things to fill in the gaps in your modern collection?"

"Oh, no!" said he, "Oh, no! We have two So-and-so's, and there are only twenty in the world!"

On the other hand, when Pittsburgh was visited, the director of the Science Museum was away on a several months' visit to the King of Spain for whom he was setting up a "copy"—and there are many such copies—of the Diplodocus Carnegii.

#### Museums Inspiring Wonder

Over the entrance to the Children's Room in the Smithsonian at Washington, is placed the adage, "Wonder is the beginning of Wisdom," probably a paraphrase of the usual rendering of Aristotle's "Knowledge begins in Wonder"; and Dr. Bather, the English museum expert, notes that several of the most famous museums of the world, as those of London and Paris, were begun as collections of "curious" things brought from distant places during the period of colonial expansion.

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Until quite recent times these three tendencies, Hoarding, Exclusive Ownership and Wonder, were represented by most of the world's great museums, and they influence largely the conduct even of the most modern.

## Classes of Museums Visited

To those who only occasionally, and at long intervals, visit museums there doubtless appears to be great similarity among them. But a systematic survey reveals differences that sharply classify them both according to their present condition and to the inherent qualities due to their origins.

### Museums Founded by Colleges

In the days of our fathers, when a taste for science meant a pleasure in running down, classifying and labeling, museums arose based on the necessity for owning the means of identification. Such museums were established in high schools and colleges. But their value depended entirely upon the use to which they were put, and that use waxed and waned with the personnel of the teaching staff.

Once a visiting lecturer needed a set of geologic specimens wherewith to illustrate a little talk to teachers on geography. She was referred to the high school teacher of physical geography.

"Sir," said she, "I want a bottle of sand, pieces of sandstone, conglomerate, and coquina; and specimens of granite, gneiss, and marble."

"Do you know those things when you see them?" said he. "I do," said she. "Then take these keys and select them," said he. "I don't know one of them by sight." "But, excuse me," said she, "I thought you were the teacher of physical geography." "So I am, but I know nothing about the subject. They appointed me to teach it because I had so many vacant periods. I am a teacher of Greek!"

Not all science collections, gathered by enthusiasts and deposited in the precarious custody of a shifting school faculty, meet such inclement conditions as these; but the situation illustrates a general possibility. School and college museums, *per se,* often do not flourish, because they do not meet a permanent need.

### Museums Endowed by Individuals

Then there is the endowed museum. Some worthy soul conceives the idea that enduring honor for his name may best be obtained by the endowment of a museum. So, in the midst of some valley which produced him, or of some city whose prosperity and whose slums he produced, he sets one. And the people gaze at it, and wander through it—and go away.

It is one of the most difficult feats in the world for any curator, however devoted he and his staff may be, to get people fully to use an endowed museum.

A docent from one of the largest endowed institutions in the world asked the director of one of the tiniest, "Is it any better when the second generation comes along? Have they any more of the feeling that the thing is theirs, any more real interest in it?"

"No," said the director, "I'm afraid they have not. Some say the donor took all he had from the necessities of the poor, and is ostentatiously giving back a little in the form of things that they do not feel the need of; and some say that he evidently felt twinges at getting more than his share. But all use the museum of his gift with languid interest, as a thing external to their lives, and condescendingly, as though the favor were theirs in using it at all."

The more conspicuously the object in question is an individual gift, the more emphatic is this attitude. It seems to be less felt when the gift is to the place of birth than when it is to the place where the fortune was made.

"Now Johnnie," says the mother, when the home place museum, or library, or high school opens, "When you go out into the world and make your fortune, see that you too remember to be grateful to the old home and the old people."

### Museums Made by the People

Finally comes the museum founded and supported by "the people." There are two ways in which the people may contribute to a museum. The city fathers may appropriate city taxes for it, or a group of interested citizens may raise the money for it by subscription.

It is rarely that so large a proportion of the community awakens to an educational need as to make the first method feasible at once. Usually some small group, frequently inspired by one ardent soul, sees the vision, and labors to actualize it. Such labor may be a long struggle, apparently ineffective and ever to be unrewarded. Read the romantic story, recently published, of the Metropolitan Museum of Art.

When, after such a struggle, the city does take hold, the structure that rises has sure foundations in the affection and interest of the city's best citizens, both rich and poor.

Yet each museum was a vision for some one before it was an actuality for everyone, and in the prosaic columns of museum statistics many of those transforma-

tions are depicted by which out of the struggle of a single life came an institution helpful to the many.

## Conditions of Museums Visited

It is easy to discover by reading their reports, or by even a most cursory visit, that museums are of two kinds—living and dead.

### Dead Museums

There is the finished museum, in which were placed by some benevolent or ambitious founder a number of objects of more or less value, to which nothing of note has since been added and from which nothing has been subtracted. The people of the place take visitors, coming from a distance, to see it, and occasionally give to it embarrassing possessions that they think are appropriate to its supposed function; but no one makes any practical use of these accessions. There is a saying that "a completed museum is a dead museum"; but this is not always true.

And there is the museum once used in teaching, now dust-laden and forlorn, the teacher who knew its uses being departed. And there is the collection once served by a volunteer curator or kept up by the annual donations of some enthusiastic citizen, now neglected like an orphan on the doorstep of an uninterested public.

Everywhere are found these defunct or still-born ventures, always dead either for lack of the person whose spirit constituted their vital power or, quite as often, from a plethora of "things" which overwhelm even the most energetic staff.

### Live Museums

A live museum, whether "completed" or not so far as its collections are concerned, is one to which the public comes, either for pleasure or instruction; or to which students come for the identification of specimens or for information on classification; or wherein a scholar dwells, engaged in research in some special field, and storing his findings in his museum for the use of other specialists of like kind with himself.

The Fairbanks Museum of St. Johnsbury, Vermont, while quite frankly "completed," having been condemned to remain much as its founder left it, has yet become noted for its vitality because of the educational work which centred in it during the curatorship of a woman with the museum gift. And though the Museum of the Society of Natural History in Boston does not usually betray its liveliness to the casual visitor, the student who has occasion to use it finds its curator alertly responsive to his needs.

### The Tendency to Die

Like other institutions which use the crystallized products of enthusiasm, a museum tends, when it has once materialized, to become a "completed" and, soon thereafter, a dead thing. Here are so many cases, as nearly as may be dust- and germ-proof, wherein rest so many things. They are "kept" by curators, and may be seen by the curious between such and such hours on such and such days. Once upon a time schools were "kept" also, and to much the same sad end. In them the wisdom of the past was "imparted," and by them none was inspired to learn.

"To my mind," says Professor T. H. Montgomery, in the Popular Science Monthly of July, 1911, "a museum that consists mainly of collections and of simple caretakers of these has a speaking resemblance to a graveyard."

Perhaps the term "dead" has been used unadvisedly. The story of the Museum of Charleston, South Carolina, told by Mr. Rea before the American Association of Museums in 1912, in which he spoke of "the nurture and development of the Museum under the auspices successively of the Library Society, the Literary and Philosophical Society, the Medical College, and the College of Charleston, and how the community rallied to its support in times of stress through popular subscriptions and state and city appropriations," proves that a museum, while apparently dead, may be but a Sleeping Beauty, awaiting only the kiss of the Prince to arise again to happiness and service.

## The Education of a City

We see what our predispositions enable us to see. In Jennette Lee's novel "The Taste of Apples," the old New England shoemaker interprets all Europe by its boots. The mission of inspection of which this paper is a result was foreordained to discover in museums the educational aspect.

### The City's Need of Education

It is not difficult for any enlightened citizen to look upon a city like Newark, 70% of whose citizens are of foreign parentage, the majority of whose adult inhabitants are engaged in productive toil, which con-

tains no college, which within a few years had only one high school, the metropolis of a state which offers no college opportunities for women, as a vast school.

There is no doubt that many of Newark's adult children need instruction on essential matters. In spite of the prosperity that blesses us, we cannot deny that there is some financial distress in the city; but one who watches Newark afoot is most deeply impressed with that poverty which shows, not in inability to buy, but in ignorance of what to buy.

And these crowds upon the street are the active minded; they are learning daily by observation and comparison, and are being sharpened constantly by attrition. You may see them grow in knowledge and discernment as you gaze. The librarians can tell you that their children are Newark's literary class, devouring a major percentage of the seriously cultural books circulated in the city.

But, behind this class of peripatetic students there are masses of unseen ignorance—starving souls at washtubs, starving hearts at forges, starving minds feeding the machines that produce the city's wealth.

Undoubtedly these people need education. If you think any of them are too old to take it, observe the transformation effected, not only in dress and carriage, but in manner and speech also, in the mother of any family of your acquaintance that has achieved recent advance in fortune.

Indeed, in a school like this we are all pupils; for there is not one of us but is in some respects a child—undeveloped in some essential element necessary to complete enlightenment. I am a child in handicraft,

you in musical appreciation, he in history of art, she in the elements of good citizenship. We all need, and that upon some vital point, elementary instruction.

### The Possibilities of Educating the City

We need not be discouraged at these four hundred thousand pupils, who are our very selves, with their deep and manifold emptinesses. Nothing is more disheartening to the teacher than a horde of a thousand children, in incoherent mass. But, divide them into classes, and look into the faces of any forty of these children, and you discover that you are looking into the eyes of forty angels, ready to grow in strength and beauty and grace under your leadership.

Fortunately, not all of the four hundred thousand of us must be taught the same lesson at the same time. Some have already piety, some good manners, some love of beauty, some manual skill, some political acumen, some musical appreciation. The fact that we come from many lands ensures this varied culture. And almost all of us are ready to learn.

The discerning museum attendant plays a game similar to that involving the question, "If not yourself who would you rather be?" and gets some surprising answers. This mild-looking gentleman has an interest in fire arms. Here is a lawyer chiefly interested in what pertains to the sea. "Don't you think," says a lady who has never traveled farther than to New York, "that India is the most interesting country in the world?" "What I've always really wanted," says a city clergyman, "is to keep goats."

An assistant in the Cincinnati Art Museum tells of

several farmers who floated up to the heights whereon that collection dwells, and who, after gazing about in the hall of Greek Sculpture and seeming particularly impressed with the Parthenon frieze, appealed thus to her, "What are they all about, and why do you keep them?"

### The Agencies for Educating the City

Who are the teachers in this our civic school?

Among the foremost are the three classes of professionals, the clergymen, priests and rabbis, chosen by groups of the people themselves to instruct them in religion, ethics and morality, the school teachers, whether public, private or parochial, trained, let us hope, and experienced in the methods of child-culture, and the newspapers self-appointed, but assured instructors of all the people. Then the librarians, paid from the taxes to supply good books to those who need them. Then the many appointed or self-appointed enlighteners of public opinion, such as settlement workers, tenement house inspectors, public welfare committees, shade tree commissions, park commissions, playground conductors, women's and men's self-improvement or civic-improvement clubs, under whatever name they flourish. Then every steady, honest workman, turning out real goods, and every clever merchant, showing good things in artistic display, and every square-dealing politician, preaching the best political economy that he can learn, and every conscientious housewife training her family and her dependents to gentle manners and thrifty habits, and every man on the street who sets an example of patience and courtesy under trial.

These unintentional teachers, however, being unsystematized in method, need not engage us. Our concern is with the processes of teaching by design. Clearly, from this standpoint every one who feels the need of others is thereby called to teach. And this sort of good citizenship is increasing among us.

### The Museum's Part in Educating the City

The specific demand upon any society that calls itself a museum association is for definite and adequate methods of visual instruction, chiefly by means of displays of collected objects.

This instruction may be given in at least three ways:

(1) To original investigators, by museum specialists engaged in research.

(2) To students, by collections and curators of special equipment.

(3) To the laity, both adult and juvenile, by collections and guides available to all.

Dr. Arthur Bather, of the British Museum Association, in his President's Address at the Aberdeen Conference of 1903, after enumerating the three divisions of a museum as (1) a stored series, accessible only to investigators, (2) an exhibited series, intended for the instruction of students, but denied to the public, (3) a smaller series of carefully selected objects, so displayed as to make the utmost appeal to the great public, advises the curator of a small museum thus:

"Ask yourself which of these three functions your museum is intended to fulfill, which of these classes forms the majority of its visitors, or which of them you most desire to serve. Confine your efforts at the most

to two of these functions; but at any rate fix on one of them and, devoting most of your energy to that, arrange your collections accordingly."

According to this advice, it is evident that it will be long before the Newark museums will attempt the first function, that of sharing with special investigators the results of original research. As to the second function, Dr. Disbrow's collection already does work in identification, and high schools science teachers bid fair so to use it as far as it is able to serve them. This is the easiest of all functions to perform.

It is with the third function, the instruction of the "great public," that this investigation is chiefly concerned.

### Progress of Education by Museums

For many years this subject of institutional use has been talked about. In 1893, Mr. Edward S. Morse published in the Atlantic Monthly an article entitled "If Public Libraries, why not Public Museums?" And Mr. Ashley, of Demarest, N. J., at the Philadelphia meeting of the American Association of Museums, in 1913, declared that that article had great influence in accelerating the trend toward better museum aids in public school teaching, although it did not produce popular interest in the establishment of museums in small towns and villages.

But the fact is that although everyone in the museum world is discussing this function, so foreign is it to the habits of thoughts of museum trustees and curators, and so unprepared to understand it is the "great public," even that part of the public engaged in teaching, that it will be many years before it will be fully exer-

cised. The teaching function of the American Museum is still in its infancy.

Speaking as a teacher, one would say that this is largely due to lack of pedagogic knowledge and skill on the part of the museums, a lack not to be condemned at this stage of the world's advancement.

#### Where Museum Teaching Shall Begin

One of the first requisites of the teacher is that he shall know the teaching point of his pupils. "When I get a class of forty freshmen from a number of grammar schools, and they are all in different stages of development, where shall I begin to teach?" said the high school teacher to the superintendent, and he retorted, "Begin in forty places!"

He knew his business. The wise teacher begins in forty places. And the wise curator who sets up a simple case labeled "Wings, and paws and hands, and hoofs," in the same room that holds a microscopic display of the structure of bone, does wisely; for he assumes that he must begin in at least several places to lead his pupils to enlightenment.

One correspondent thus answered our inquiries as to co-operation with the schools: "We tried for seven years to work with the schools here, and never got one response. I wish you joy of your attempt."

Compare that with the account of like work in St. Johnsbury. While the curator was talking to an audience of seemingly indifferent or hostile teachers, as to how she hoped to help them in their teaching of science, this thought came to her, "They are not against it; they are simply afraid to do it, with or without help."

Straightway she said to them, "Would you like me to do this teaching for you?" Her hearers were transformed to ecstacy. "We would!" She had found their teaching point. It was not in forty places, nor yet in four. It did not exist! They knew neither the birds, nor how to teach them.

Most of the museums visited, however eager to teach, were confessedly groping for the place at which to establish their doorways.

Said one young museum assistant, regarding her learned director with a glance of affectionate exasperation, "He knows a lot about cuttlefish; but he knows no more of the needs of the average man than I know of the Ba."

Said one virile director, "My trustees are constantly pulling at my bit to haul me onto the tracks; but I'm all for traveling on the dirt road."

Says Professor Montgomery, in the article previously quoted, pleading for the employment of live employes as the great desideratum, "When this is done, museums in general will be great teaching institutions, and cease to be cold storage centers."

### The Aim of Museum Teaching

Professors Charles and Frank McMurry put out, sixteen years ago, a little treatise on teaching, called "The method of the Recitation," which, if one text were their all, might well be recommended to museum curators and docents. They advised that the teacher have an aim, well defined, before beginning his instruction.

When the director of a museum shuts the door upon the amassed hodge-podge of his ten or twenty years'

acquisition, and gives a charming illustrated lecture to several hundred people upon "Our Neighbors, North and South," without a single allusion to anything in his collection, one wonders what he thinks his aim is. He directs a museum, and he teaches; but, his museum does not teach.

When a curator with an artistic soul arranges a Florentine scarf back of an Etruscan vase on a Japanese stand, and so illuminates the group through a Tiffany screen as to produce an harmonious effect, one wonders what he thinks is his aim. He could have blended several objects at less cost by a trip to Wanamaker's.

When a charming young lady gathers about her knee in an art gallery a group of young people full of sentimental devotion, and tells them the story of Eurydice and then, on their departure, sets down, "Saturday Class in Appreciation, 24," one longs to inquire her aim.

The fact is, all these, and others, have an aim, though a crude one; they desire to attract people to their museums, and they hope that the silent influence of the museum will do the rest. And so it will, if it is a Teaching Museum.

In order to achieve the teacher's aim it is often best to give the pupil an aim of his own. The child makes a mat for mother at his teacher's suggestion. His aim is to please mother. His teacher's aim is to develop him. Presumably the president of a college is more interested in the discipline endured than in the cup won by his victorious team.

There is nothing in modern educational method more resented by those who suffered, as pupils,

under the ancient method, than the habit of giving the pupil an agreeable aim. The aim in the old days was always to escape a whipping. The elders still approve it as a proper aim. And so, when a teacher of to-day announces to her class in reading, "We will now see what further happened to Ulysses," their feelings are outraged. That teacher knows well enough, the old folks say, that the fate of Ulysses is not her aim. What she is after is to train the young to be intelligent readers, and she should frankly say, "Now read with expression or be punished."

One museum visited, in its suggestion of an aim to the youth whom it wishes to instruct, shows a canny knowledge of juvenile traits. It places on the front door a sign forbidding children to come unattended, and then receives them with open arms. The curator declares that the decoy works well. And one of our most famous museums in a great metropolis gives, during the summer months, free transportation, a colored postal card reproducing some feature of the collections, and an ice cream cone to each guest sent from certain settlement centers!

### Learning by Doing

The best teaching is that which causes the pupils to apply promptly the knowledge that they gain. There is a great deal of this done among American museums.

In Cincinnati a group of those who have themselves received instruction, act as volunteer unpaid docents. In the Children's Museum of Brooklyn a boy group of practical enthusiasts practice wireless telegraphy, construct industrial models, make summer trips afield,

and form a juvenile tree commission for their home streets. On the wild-flower table of the Boston Children's Museum each flower or sprig is marked by its name, the date when found, and the name of the first finder. The Chicago museums were found to be alive with the activities of their patrons.

### The Doctrine of Interest

Crudely stated, the doctrine of interest teaches that we learn best that which interests us most. Studies are made of children's interests and the curriculum is altered to suit them. The recent exchange of modern for ancient languages in high schools and colleges, the substitution of composition writing for technical grammar, and the current enthusiasm for vocational education are based largely on this doctrine.

So the coming museum is to minister to the living needs of the people. J. S. Lopez, in Harper's Weekly, February 24, 1912, gives a lively account of the activities of the Commercial Museum of Philadelphia. He tells us that the object of its educational work is "the preparation of boys and girls to play an intelligent part in the new era of foreign competition upon which America is entering." He claims that "To-day there is, in Pennsylvania, no mountain school house, miles from a railroad, but may have, from this museum, its own illustrated lectures and its own scientific collection of objects that enter into the world's commerce."

And the public schools, so constantly complained of by museum directors as dead to art and science, show, in Philadelphia, the effect of the appeal to what they feel to be their lively concern, since, in groups of 100,

the children are brought to the museum during school hours in such numbers that all the hours of every school day are generally engaged three months ahead. And this, although the School Board makes it not obligatory, but merely gives permission for the visits.

### The Method of Presentation

Given, in the museum, a knowledge of (1) what the public knows, (2) what it really needs, (3) what it thinks it needs, (4) what interests it—what then?

Then, a wise method of presentation.

### The Curator

Museum literature, written mostly by directors, curators, or docents, though sometimes also by museum trustees, apotheosizes the curator. If he be a live man, all will be well; if not, all devices, endowments, and gifts will be of no avail. "The crown of the whole is the staff of curators," says one; and again, "The strength of an institution lies wholly in its men." "Give us docents enough and the torches fired at their steady flame will soon make an end of the twilight of American aesthetic life," says another. And Dr. Bather declares, "It is astonishing what can be done with the slenderest means if only the curators have energy, and, what is more important, brains, and, what is most important, taste." He is speaking of art museums.

These statements are relatively true. There are many museums which are full of objects and yet fail to function; while other museums, spending nearly ninety per cent of their incomes on curators, are functioning freely and profitably.

If, however, the Sistine Madonna were given to a museum, no amount of languor, stupidity, or even lack of taste in the curator would prevent us from visiting that museum. And the cleverest and most tasteful corps of curators can blunder wofully in their attempts to teach, when they do not so much as know that there may be a teaching method.

### Teaching Through the Ear: The Docent

One critic prefers the term "docentry" to "educational" because the latter is so "dull" and the former so "alive." The fact is that, while docentry, under present conditions, is a valuable improvement on old, repellent or *laissez faire* methods, it is really in a way an acknowledgment of short-comings in museum administration. A museum dedicated to the education of the people should be a series of collections, so selected, so grouped, so displayed and so labeled that people are allured and held to the effort of continuous observation by the interest they excite, and, thus held, see facts in relation and are thus caused to think rightly or to feel nobly. When a docent tells you what you see, you do not wholly see; you partly hear.

### Teaching Through the Eye: The Arrangement

It was my good fortune, on my travels, to meet many directors, curators, and docents. They were all earnest workers, interested and intelligent, and some of them had excellent taste, and they all obligingly enlightened me as to their aims and methods. Some of them were born with the teaching faculty. And there were few from whom I failed to learn something likely to profit

us in Newark. Yet at the museum wherein I learned, perhaps, most of how the people may be taught, I had, as it happened, no guide but a recently appointed janitor. Here one wished to stay and study, for here were many ideals, as to museum instruction methods, made visible. Beyond certain clever devices there was not much that was new; but what had been, in other museums, done now and then and almost by chance was here a matter of determined policy.

In one museum the gentleman in charge of instruction said that he could never get the curators to leave objects grouped in cases where he wanted them for his teaching purposes; they would insist on rearranging them according to some principle included in the history or the philosophy of art. Hence his printed outlines were constantly made useless.

In another museum the principle of grouping is, for legal reasons largely, to put into one room what one man gave. This makes of the museum an advertising agency for a departed Croesus.

A docent wanted to connect design in fabrics with school handiwork. "It is beneath our dignity to admit amateur work to our galleries," said the curator.

Without sympathetic understanding of the importance of this work, directors and trustees are apt to think the necessary sequences of objects illogical, and the best instructional devices trivial. "What is this Eighteenth Century vase doing next a Trenton bowl?" asks the director. "I was illustrating glazes," says the curator. "You are mixing periods," retorts the director. The most unhappy museum officials in the country are those who hear the call to teach, but lack the skill

to make it audible to their superiors in office. When the deafness is among the subordinates, there is always a possible remedy.

## Devices in Museum Teaching

### Classification of Devices

Devices are direct or contributory; they either instruct, or attract.

A series of nests, burrows, hives, etc., labeled "Homes of Animals" is a direct teaching device. A weekly lecture upon "The Art of the Nations," calculated to lead people to go from the lecture hall to the museum to look at pictures from Holland, Italy or France, is a contributory device.

A docent who takes parties about the museum, is a device meant to instruct, while an organ recital within the museum precincts, is meant to attract visitors.

### List of Devices

Here is a list of some of the devices seen in museums visited:

1. Live creatures, such as fish, birds, monkeys, bees, mostly serving to produce atmosphere. A boy who, wandering through the formal aisles of a museum, meets a companionable monkey, thaws at once.

2. Processes demonstrated, as when the curator uses the potter's wheel.

3. Things that work, a blast furnace that lights up if one presses a button, or a working model of a canal.

4. Lectures in lecture halls attached to the museum. This is very common. The lectures may be given to

clubs, to miscellaneous audiences, to classes. They may be free, for pay, during school hours, on holidays, to delegates from classes, to the workers in a factory. And they may be illustrated with objects, with slides, or with moving pictures. At one museum lectures on art are given periodically in Italian. At Boston, lectures on Japan are given by Japanese in costume. In Brooklyn a lecturer gave the same lecture eleven times in one day.

These lectures may be given by the staff members or by outsiders. The lecturer may be paid or a volunteer. A curator says "We don't pay, but I always, in writing thanks, enclose a crisp five dollar bill for expenses." Some lecturers are engaged regularly, and paid well.

5. Docentry. This may be a kind of sublimated guide service, the hackneyed memoriter story of the old-fashioned guide being replaced by an informal talk, adjusted to the intelligence of the hearers; or it may be a real lesson, given to a group seated about a case prepared for the purpose.

6. Lectures by the staff in schools, homes, clubs, etc. One curator announces that he will lecture to any organization about anything, so long as they realize where he is from and what he represents.

7. Real classes. There are all grades and styles of this work. In one place teachers come for work which counts towards promotion credits and university degrees. In Buffalo, all the science work in the city schools is done by the museum force, the pupils coming by direction during school hours.

8. Story telling. This varies with the personality of the teller.

9. Excursion leading. The excursion may be a bird walk, a trip of historic interest, a tree-study trip, or a star-gazing jaunt. It may be led by one of the staff or by an outsider. Its connection with the museum is often loose.

10. Entertainments. These vary from society functions to visits from settlements, transportation of visitors sometimes being paid in the latter case.

11. Employment of the laity. A curator in Boston asked a group of children for advice in choosing the prints for a children's exhibit. In another museum, volunteer "Museum Guards" keep discipline on Sundays. In another, "Museum Aids"—lay women who volunteer, and receive instruction—act as guides, and help in labeling. Another museum exchanges service with the local boy scouts.

12. Open laboratories. In one museum, a constant watch is kept for people, especially young people, who show unusual interest. To such an one access to cases, a stool at a table where he may work, laboratory facilities, and other liberties are gradually accorded.

13. Lending objects to go out of the museum. Pictures, slides, stereographs, lanterns, type-written lectures, framed pictures, cases of specimens, oil paintings, pianola records, materials for experiments, all are sent to schools, clubs, churches and homes.

14. Flower tables. These have been described.

15. Telescopes, planetariums, celestial spheres and domes. The return to a general interest in astronomy through the agency of the museum is noteworthy.

16. Activities, related to the museum collections, for children to engage in. The Worcester Art Museum has

strong work of this sort. Among these are transparent slates on which to draw the main lines of simple pictures, prints to color, picture puzzles, individual written catalogs of pictures studied, a game like Authors, composition contests for prizes, clubs for neighborhood improvement, or for science or art study, exhibits of collections by pupils.

47. Labels. In cases in a certain museum is a series of labels like the following:

**Shell Gorget Representing Human Face with Burial No. 205**

**Rose Mound, Cross Co. Arkansas**

**Terra-Cotta Statuettes of Chalchihuitlicue**

**"Emerald Skirted" Goddess of the Flowing Water—Mexico**

If those are labels illuminating to the specialist and specialists visit the museum, then they are the labels to use. But it would seem that either other and simpler labels should enlighten the layman, or that laymen should not be invited into the alcove containing this exhibit.

In the same museum is found this intelligible label:

**Dog Sled—Greenland**

**Peary Relief Expedition**

Museum literature contains many admissions by museum authorities that the label problem is a grave one. Some museum experts have solved it wonderfully well.

Here is a label that teaches:

**Sponges**

**Sponges** are a low sort of animal life, mostly marine

**Made of** soft tissue and a tough horny skeleton—Bath Sponge
or siliceous material like glass
or carbonate of lime

**Found in**
warm shallow water—Commercial
deep water—Glassy
fresh water—One family of glassy
cosmopolitan—Limey and glassy

**Used for** bath purposes—Horny sponges

**Caught by** diving, dredging or using long-handled forks from boats

**Artificially propagated** by cuttings which mature in from one to three years

**Skeletons** only are exhibited; soft slimy tissue is removed

**Ask for** Museum Bulletin, vol. III, No. 5

**See** reference book list posted on stair landing.

No specialist needs such a label. But this case is gazed at each Sunday by hundreds of people, from the Italian laborer's family to the mayor's wife, not one in a hundred of whom ever heard of a sponge outside of a bathtub. If the readers of that label look knowingly at the sponge when next they use it, printer's ink has not been wasted.

Nearby stands a big bear in a case. The label reads: "Observe—" and then follows a list of salient features, which would not have been observed without the stimulus of the suggestions.

Here is a good label placed under a strange, weapon-like article in a glass case devoted to Alaska:

> **Scratcher for Decoying Seal**
>
> **Seals** are curious and are easily attracted by unusual sounds. With a **scratcher** like this the hunter makes a sound near a blow-hole in the ice, and thus entices the seal into a net.

Any layman can understand that; no one, however erudite, could know the facts without such instruction as this. And there would be little value in showing the scratcher were not the label thus explicit.

18. Catalogs. They are as vexing as labels.

Suppose a poor man takes his children to a museum of art. He buys a fine-looking catalog at the door.

"This," says the father, "will tell us about the things, and we can take it home and refresh our memories with it." Then he opens it and reads, "No. 259a, a wooden statue of Jerapopacockle. 32 inches high, and 19 inches wide at the shoulders. The god"—oh, it's a god—"wears a tall head dress. He stands on a low pedestal, resting his weight on both feet. In his right hand he holds a spear, and on his arm is fastened a round shield. His expression is severe. The end of the

nose is slightly defaced. Supposed to belong to the ninety-fifth dynasty!"

Then he looks around at his astonished offspring, and the most hopeful cries, "Why there's only one thing told there that I couldn't see for myself, and that one I couldn't understand. What's the ninety-fifth dynasty?" Then the father blushingly replies, "I think it's the reign of some family somewhere," and shuts the book, inwardly calculating that it will take fifteen walks homeward at night to make good the seventy-five cents.

Catalogs are here included because they can be used to instruct and sometimes are thus used.

19. Things grouped about a thought, or central and understandable idea. Many museums have such groups. Some museums have many of them. Among these ideas are: "Homes of Animals," "Protective coloring of animals," "Reversions," "Tree diseases," "Structural plans," "The early steps in weaving," "Bird calendars," "The evolution of transportation methods," "Albinos," "How coal is formed," "The evolution of the landscape," "Some ways of portraying the wind."

This list of devices for museum teaching might be more minute. It covers, however, in these twenty classes, most of those seen.

What cannot be thus enumerated is the wide range of the appeal which museums are making on the advertising side. Every type of human being is included in the special appeal of some American museum. The National Museum at Washington gives instruction in what to collect and how to ship it, to the outgoing consul; another museum is the rendezvous of Society;

a third makes an effort to attract motormen, and the "Truck Drivers' Convivial Club" is invited to its shows.

## Co-operations of Educational Agencies

With the growth in the community of the community spirit, and of the tendency to see society as a whole and social forces in their mutual relations, there has arisen a movement so to unify the education of the child, and so to integrate the services of church, family, school and social life, as to make character growth symmetrical.

It was natural, then, in this inquiry, to look not only for the educational work of the Museum itself, but also for its co-operation with other educational agencies. It must be confessed that little of such work was found.

### The Agencies Involved

Some science museums have subsidiary gardens for experiments. Some museums are in parks and closely affiliated with park officials, financially, or sentimentally. Some art museums have art schools as appendages, or are themselves appendages of such schools.

An inherent antipathy seems to exist between museums and libraries, one which even the most bookish director and the most practical librarian, united in personal good fellowship, cannot wholly overcome. Many museums have libraries, some merely for staff use, and some advertised as for the use of patrons. Not a few museums are housed in library buildings.

President Ward, of the Public Museum of Milwaukee, addressing the Museum Association in 1913, adjured his confreres to avoid the library as a foster mother.

"We have in Wisconsin," he said, "quite a number of museums run under the auspices of libraries, and every one of them is dead." The museums of Pittsburgh seem not to be injured by their library contacts. And the Newark venture, though still an infant, shows vitality at least in growing.

Co-operation with schools is clearly a most natural form of work for any museum. But a certain court of law refused to admit that the museum is an educational institution, and the Carnegie Foundation does not admit museum curators to its professorial pension privileges. At the first meeting of the Museum Association it was moved that the organization become allied with the National Educational Association; the committee appointed to effect the coalition died of atrophy during the next two years.

Evidently, then, museums have co-operated little, in the past, with other organizations, and especially with schools. The general practice is to educate the child in schools by means of words, and the adult in museums by means of things—a reversal of what would seem to be the natural order, "The thing before the name."

#### Extent of Co-operative Work

What is the extent and what the profit of co-operations among these institutions of culture?

This is part of another question: What work is done by the schools outside the school-room walls?

In all progressive cities something is done besides the traditional class-room work. This is in response to the movement against the depressing effect of formalism, and of placing chief reliance on the text-book.

In this work outside the school-room four institutions are concerned: Schools, Libraries, Museums, and certain volunteer agencies peculiar to each city, such as parent-teachers' associations, lyceums, institutes of science, history, art, or music, women's clubs, men's organizations, etc. In every city the situation has its own special features.

From one place, as already stated, our letter of inquiry brought this from the curator: "We tried for seven years to work with the schools here, and never got one response." In another city the librarian said, "We keep as far away from the schools as we can." In another city the curator of one museum declared that the public school officials were the only dead educators in the place; and the curator of another museum said that the school officials were his best supporters.

So varied and contradictory were the replies received to inquiries about the relation between museums and the other institutions that this program of inquiry was adopted in each city:

(1) Visit the museums, (2) Visit the libraries, (3) Visit the superintendent of schools.

At museums and libraries the inquiries were: What are you doing for the schools? For the women's clubs? For settlements? For factories, shops and stores? For churches, and men's organizations? For anybody else by way of direct education? What lectures do you give? What do you publish? What, besides books, do you circulate? How do you advertise? How do you label your wares? What classes visit you? Whom do you visit? What do you do for each other?

The school superintendents and supervisors were

asked: What use do you make of the library, the museum, the zoo, the parks? Of factories and city departments? Of collections, stereoscopes, stereographs, stereopticons, charts and pictures? What do you get into your classes from outside and what outside of your classes do you see?

These inquiries were pursued with more or less thoroughness in nearly every place visited.

### The Attitude of Libraries

All libraries know that they have a duty beyond that of supplying books to citizens who ask for them. The modern library contains the book militant.

It is an important article in the librarian's creed that he should so emphasize his mission that a large percentage of the adults and *all the children* in the community shall be aware that he has something to offer them. What the percentage of adults should be is a question to be settled by each librarian according to his conditions, but all progressive librarians agree that 100% of the children should be the goal. In all the cities where the question was asked classes from the schools go freely to the library for lessons in its use.

In Providence every child who reaches the sixth grade has had two lessons at the library during school hours, and in Toledo the present Superintendent of Schools, on taking office, sent every public school pupil in the city above the second grade to the library for a lesson, and thereafter has caused every third grade class to go as soon after promotion as possible, lest some over-age pupil be withdrawn and miss the initiation.

In Pittsburgh, not content with its work in schools,

factories, settlements, and stores, the library has some seventy-five assistants who discover groups of children debarred by the isolating topography of the city from frequent visits even to the numerous branch libraries, and who visit these groups regularly at the home of some one child, reading, telling stories, and circulating books.

### The Attitude of Museums

The museums have no such universal understanding of their duty. Perhaps their duty is not as yet so comprehensive. Every sane adult who can read must need, at some time, to read with some definite purpose. Every member of every community over ten years of age should read daily for pleasure. And the public library is the accredited distributor of printed matter.

But museums are fitted for widely different tastes and uses, and their appeal is to considerably less than one hundred per cent of the community.

Even museums of the first class, however, do something for the people at large.

When Smithson laid the foundation of our national museum, he dedicated it thus: "For the increase and diffusion of knowledge among men."

The curators see to it that the exhibits open to the general public contain displays sufficiently spectacular to awaken pride in American pilgrims and respect in foreign visitors. They identify and interpret specimens and answer questions, no matter whence the source; and the department of mineralogy gives duplicate specimens to all who ask, merely stipulating that the request be sent in through a senator or representative. Also this department gives a broad interpretation to

the term "Exchange." If you are a genuine collector you may send to it 20 specimens that it does not need and get in return 50 specimens that you do need. Neither of the other departments can, from the nature of the case, be so democratically educational, for even of Indian arrow heads the supply is limited, and a stuffed gorilla is not an exchangeable commodity.

The educational motto of this museum might be "Further and preserve the discoveries of the few that they may teach the many."

The Children's room in the Smithsonian seems to have direct educational relation to the children of Washington, who alone can reach it. It is attractive and interesting, and its secretary says that he receives many letters inquiring about its methods and purpose.

More exclusively devoted to the needs of the specialist is the museum created by schools, colleges, and learned societies. Few of these, even, are regardless of the claims of the many. "I would be glad to see the Children's Museum become well established," said the curator of Science in Boston "for it will relieve us of a kind of duty that we are not equipped for, either in time or money. Teachers ask a good deal, and when they ask we do not feel that we can refuse."

It is a sign of health in the schools of Boston that they so pursue the specialist for help in their work.

Practically every museum supported by the public strives to do its duty to the schools. The American Museum of Natural History has docent service, and illustrated lectures, and lends specimens; the Metropolitan hires instructors and invites teachers to bring classes. The Bronx Zoo and the Aquarium have public

school classes at regularly appointed school periods; the Boston Art Museum and Children's Museum conduct classes and take materials into the schools; there is active school teaching work done by the museums of Worcester, Providence, Cincinnati, Toledo, Indianapolis,—in fact everywhere curators are coming to recognize their tasks as those of teachers of the schools.

At the Commercial Museum at Philadelphia, school hours are filled by school classes attending illustrated lectures upon industrial processes and then visiting the correlated special exhibits shown by the museum.

When the art museum of Toledo puts up an exhibit of pottery, every grammar grade class in the city devotes an hour and a quarter of school time to attend a demonstration at the museum of pottery making, and then studies the exhibit. The same thing occurs when the subject of the special exhibit is stained glass, or lace, or pastels; so that during the winter each pupil above the fourth grade spends a number of school hours receiving instruction in the arts at the museum.

At Indianapolis, the contents of the Children's Room are changed each month to meet the needs of the school course in art. Landscapes, designs, figure drawing, whatever is the subject accentuated during the month, are shown—and the classes come, using the materials provided by the museum, sketching, taking notes, under the instruction of teacher, art supervisor or museum instructor.

The Art Museum of Boston does elaborate work for a group of teachers, and gives each teacher an outline that she may duplicate the lesson for her class.

The docent in the Art Museum of Pittsburgh gives a

lecture illustrated by slides, shows the class what the gallery holds of illustrative material, and sets a problem for solution by the children.

There remains the museum devoted to the service of the people, and largely through the schools,—that type of museum which acknowledges, "We have not sufficient money to buy great works of art. Classics and antiquities are far beyond our hopes. Besides, every new museum aspiring to the great masters, must be worse off than its predecessors, since the supply of old masters is necessarily limited. There is, nearby, a museum equipped for the specialist. Our task is to make the soil out of which master artists and specialists grow."

So we have people's museums, museums of industry, children's museums. These museums find out what the schools need or want, open channels of communication with them, and supply these needs through these channels.

Failure to bring about such intercourse with the schools that every child hears the threefold invitation of art, science, industry, spells essential failure for the people's museum.

It is not true that, though 100% of the children have heard these calls, they must all heed all or any of them. There are ear-minded children, introspective or reflective children, imaginative and ratiocinative children, who are hampered rather than helped by enchainment to material things, however interesting or beautiful. These will pass the summons by. The mission of the museum is to sift out those who can profit by systematic visual instruction, and to serve them intensively.

An earnest effort is being made to do this in many places. The most successful methods used are, to recapitulate:

1. Such a museum devotes the greater part of its time and money to people, not to things. It regards curators as more valuable assets than collections. It is known as the place where Mr. Blank or Miss Blank works, not as the place where such and such things are "preserved."

2. Its collections consist of concrete material corresponding to units of thought. It is like a library. Each department is a book; each room is a chapter; each case is a paragraph; each shelf is a sentence.

In the Brooklyn Children's Museum is a case containing models of wax and of the anatomy of the bee. They are so old that no one knows whence they came. They were of little use, until the curator set opposite them a bee hive whose occupants fly in and out of the building, carrying on their social functions under the eyes of the young visitors. From that moment the old models gained a meaning and a value.

To make each museum unit a thought unit two things are necessary:

A. The orthodox method of filling each shelf with many specimens, so similar that only experienced eyes can see differences between them, must be changed by a decrease in the number of things and an increase in the differences between the specimens. That is to say, a synopsis only must be shown in each show case.

The reasons for this are threefold: First, the layman cannot appreciate minute differences; second, untrained minds become confused by a multitude of

impressions; third, when everything is shown, crowding results.

B. The relations between neighboring articles must chiefly be, not those of similarity, but those of causation. The more dynamic an exhibit the more vigorous the impression. The interest shown by most observers varies in a descending scale according to whether the things shown are:

(1.) Living, as in a zoo, or aquarium, or aviary.

(2.) In action, as when the automatic stereopticon shows its pictures.

(3.) Showing a dramatic situation, as in habitat groups.

(4.) Indicating the life cycle of an individual, as from moth to moth, or the development of a species, as from bog to coal, or the development from raw material to finished product, as from the shell to the button. The least interesting thing is an unrelated thing, and next to that come two things related merely by resemblance.

### The Attitude of Schools

As to the schools, they have their problems also in the matter of co-operation. The traditional way to test school results is by books learned, examples "done," compositions written, and technical excellence acquired. To interfere with routine by insisting that it is also worth while to see beauty, to love nature, or to feel with the inventor his thrill, is to arouse opposition in the mechanical-minded.

Where the course of study makes no provision for the use of any knowledge or power gained outside of text books, or where such provision is a dead letter.

the teacher who objects to a meaningless junket is right.

Also, where ancient customs prevail, there is always danger that conservative parents or citizens will criticise.

But, so far as my visits went, this discussion is academic. I found only one place where the schools do not quite freely use the museum so far as it is equipped with materials and assistants adapted to their needs. They do this better than they use the libraries.

In one city the museum director reports that the Board of Education pays transportation, when the child cannot; in another, the Board of Trade undertakes to do so. In Toledo, classes can move about with great freedom, for the carfare of young children is only one cent. In Pittsburgh, it costs twenty cents to give a child from a distance his glimpse of the beauty on the hill. The director there is considering the getting of subscriptions to overcome this difficulty.

#### Difficulties in Securing Co-operation

As is evident, each library, each museum and each school system gets its points of contact where it can and develops according to its own genius. The result is that no two situations have the same virtues. But all the situations have the same vice and that a natural and inevitable one, in view of the manner in which the three educational factors are governed. In every place the weakness consists in a lack of correlation, due mostly to a lack of knowledge and of sympathetic insight. Schools do not know what libraries have for them. Libraries do not know what museums are doing.

Museums do not know how schools are run. None of these agencies knows the public which it serves.

The head of a prominent secondary school assured the librarian, "Really there is no value in lessons on the library for our students. What they need is just to be shown through, you know, from garret to cellar, made familiar with it, you know." This schoolman thinks that a library is a building.

A prominent museum official vaunts his museum as democratic. "We are glad to have school classes come and spend the day with us. And our lunch room provides a nourishing simple lunch for twenty-five cents!"

The curator in one museum thinks that he is doing a "great work" in the schools when out of some 12,000 school children he gets "over a hundred" essays on "A visit to Our Museum." A librarian considers her work as "a poor business" when only half the teachers bring their classes. And a school principal, who himself is a student, first borrows from the city library all that it has on a subject and then sends thirty children, after school, with no chaperone and no knowledge of how to use a reference book, to "look up" the same subject for a debate. All these misunderstandings a real get-together spirit would quickly obviate.

If every museum were to put, as does Providence, a bibliography on the wall beside its well-labeled cases, and conveniences for consulting the books near the cases, there would be less vacant idling through the museums of the country.

These observations are the partial results of visits to other cities. And they lead directly to the following suggestions as to the Newark Museums.

## Applications to Newark Museums

### Their Obvious Advantages

The Newark Museum Association is to be congratulated on several counts: Its museums have not been given by any one creator. They need the support of all citizens. They have so little that, with a well defined purpose, future accretions should fall easily into place. These museums, being housed under the same roof as the library and directed by the librarian, such an intimacy is possible, perhaps, as may enable Newark to be the first city completely to interweave the work of the schools, the museums, and the libraries. With Ex-Governor Murphy, President of the Essex County Park Commission, as president and sympathizing with and understanding the work, there is also a chance of giving it such a working relation with the Park Commission as exists, probably, nowhere except in Boston, where the Park Commission houses and provides upkeep for its Children's Museum.

A museum should, for its best good, be poor; but not too poor. Receiving so small a financial support from the city, ours is fortunate in having for its quarters rooms which, though few, are of a proper character for its collections.

#### The Inevitable Growth of Any Museum

No one starting a museum need fear that he will want for things. Whatever be its scope, things will flow in.

This, at least, was the testimony of most of the museums visited.

"We have struggled hard to preserve this museum for

art," says one curator, "and have offended many would-be donors by refusing their collections."

"This may seem to you a scant exhibit of modern art," says another, "but I assure you that we can't show what we have, and we couldn't had we twice the space."

"The late curator," sighs his successor, "was snowed under by material that his financial resources did not enable him to handle."

"It is easy for you to see what's the matter here," says a trustee. "The director has permitted us to be overwhelmed with truck."

"Build a museum in the desert," says one, "and you will shortly find your collection ahead of your staff."

Two of the most efficient small museums visited, in Providence and Brooklyn, spend almost nothing for their collections, but rely on donations and the specimens obtained by their staff. And we are witnesses recently of the straits to which the Metropolitan has been put merely to house what has been given.

It is not suggested that the Newark director shall never buy. But, being poor, he will not make impulsive purchases. Each will either fill the gaps in a plan which has been based upon gifts already received, or will make the beginning of a collection based on an idea calculated to attract gifts for its completion.

No director, starting a museum under a set of trustees who understand and support him, need fear the final outcome because the beginnings are small. A pull-together spirit is worth as much as a million dollar endowment—and attracts the endowment.

Evidently, then, the association has only to be harmoniously aggressive, and its educational value is assured.

### Disadvantages of the Newark Museums

Newark's position near our greatest city, often called an asset, is sometimes seen to be the opposite. To obtain for Newark cultural agencies, such as first class theatrical performances, grand opera and museums, is more difficult than for interior cities of the same size. The argument that those who wish these things can go to New York, with its implication that those who cannot go often to New York do not wish cultural opportunities, is the usual argument of the Cans about the Can'ts. We can hardly expect our city to be entirely free from this spirit.

The obverse tendency, to pour contributions into coffers which are already full, is equally common. We see it in huge gifts to the great colleges and in neglect of home institutions, in the crowding of large churches and the stream of donations to the larger museums. The Newark museums will doubtless have seven lean years and then seven fat years; it is a common experience.

The conscientious conservative we have always with us. In this particular instance, the conservatives have especial advantages in argument. They insist that it be proved to them: 1. Museums are good; 2. Newark needs a museum; 3. It should be three kinds of a museum; 4. It is needed soon; 5. It should serve as an educational agency; 6. It should be co-operative in method and democratic in spirit.

Those who are conservative because they cannot see until they are shown, are the class who most need museums.

The habit of large giving by individuals for the com-

mon weal has not yet become fixed among wealthy Newarkers; and such giving has been chiefly for that type of charity which obviously helps its object, rather than that which more subtly enables him to help himself. The more difficult practice of creating so general an enthusiasm as shall attract the mites of the multitude is also yet in its infancy here. But civic consciousness is rapidly growing. Newark's museums bid fair to come into port on the crest of a tidal wave which is just now rising.

Although most of the individual things that the Newark museums ought to do are done somewhere to-day, yet the entire scheme is not to be seen in full operation anywhere. The carrying out of good plans will be slow, for it will be impossible to hire trained experts to do what has not yet been done. Hence, sustaining the promotors' faith and rousing of enthusiasm in others will require both wisdom and vigor.

Each of these drawbacks has been suffered by some museum visited. They are written in archives, whispered in private conferences, and implied in formal reports. They need not appall, though some of them will undoubtedly annoy.

## Suggestions for the Newark Museums

### General Scope of These Museums

In the near future, the city government will perhaps not provide more than buildings and up-keep, including salaries, for the Newark Museum. Collections must be gained through subscriptions and gifts. As the city contains persons of diverse tastes who are likely to give to institutions if they have already a department cov-

ering the special interest involved, the association should collect, as soon as may be, a nucleus of really good things in all its three fields, art, science and industry. History is omitted because archaeology can be included under ethnology, and, because in Newark is the headquarters of the New Jersey Historical Society, and duplication of work is bad policy.

This nucleus, however small in quantity, should be of such excellent quality as may encourage real connoisseurs to commit their treasures to the museums' keeping. The next few years will be the heroic age, the Days of the Fathers, which will be looked back to with respect when the time of fruition has come. Compare the humble beginnings of the Metropolitan Museum with the opulence of its three latest bequests.

Since the city government can not righteously subsidize any enterprise that does not prove its value to the city, the association must immediately prove itself to be an agency both of cultural and of economic value. This it can do only by serving both adults and children, both for education and for recreation.

### Art

As an agency of cultural pleasure-giving, the art department should be pre-eminent.

For this purpose, not rarity, but beauty is necessary. Connoisseurs can see in the metropolis collections with which our collection can never compete. The comparatively uninformed can be well introduced to such types as will ultimately make them also judges and enjoyers of beauty, through reproductions and traveling exhibits, if these are well displayed. The present sculpture hall

proves this. There are many galleries containing more valuable collections than this little group of familiar casts; but no collection is more perfectly placed and grouped to produce refined aesthetic pleasure.

Every effort should be made to find where, in the city, art is studied, and in connection with what groups of people art appreciation is likely to be easily evoked, and, through the simple materials that can be afforded, intelligent co-operation should be created with these forces for these ends.

Financially, the art department can profit the city just in so far as the city's industries appreciate the economic value of beauty. A lump of clay worth less than a penny, may, when transformed by the industry of the artisan into a bowl, be worth a dollar; when transformed by the skill of the artist into a beautiful bowl, it may be worth many thousands of dollars. The like is true to some extent of many industries. An industrious and frugal jeweler can make a living; an inventive and artistic jeweler can make a fortune. The difference between a five dollar and a twenty dollar hat is much more in the style than in the material. The next generation, taught the principles of good taste in the schools, will prove this more fully than do we, and as America comes into competition with nations where the economic value of beauty is known, our manufacturers will learn it of necessity. A growth in this knowledge should be stimulated by a personal propaganda of museum support among the manufacturers of Newark.

The Art Museum of Toledo shows two rooms, built within the Museum, their furniture costing about the

same, one beautiful, the other ugly. And the director advertises, through the city papers, that he will advise any householder how to get the most beauty for his money in house furnishing and decoration. Were the art department of Newark's museum to do that, and then to furnish young artists with opportunities to cater to the taste thus awakened, Newark's finances would be materially improved, both through the retaining of much money now spent elsewhere and by the attracting of a high grade of purchasers to this city.

### Industry

There can be no question as to the advisability of making industrial exhibits prominent, for several reasons:

Vocational education is receiving attention from both citizens and school authorities in Newark. The schools have established a vocational elementary school for boys, and the same is to be done for girls. The East Side and the Central high schools both emphasize the educational value of technical subjects. Newark has long had a technical evening school. And yet, the city does not pretend to have solved the question of vocational guidance. Any help in affording opportunity for insight into the methods and processes of the world's industries will doubtless be gratefully received by both teachers and parents.

Newark is a city of industries. The curators in Philadelphia assert that the heads of the developing businesses in their city give appreciative co-operation to all that the Commercial Museum undertakes. There can be no better advertisement than such ostentatious

frankness as is shown by the free excursions of inspection offered to visiting housewives by the Franco-American Soup Company, or such screen pictures of factories as those shown on the Heinz Pier in Atlantic City. The museum trustees should bend their individual energies to inducing the manufacturers of the city to put loans and gifts on exhibition in the museum.

The elementary public schools emphasize industrial geography, and, as there are definite requirements for this in the courses of study and definite tests involving these topics, the teachers will doubtless be glad to take advantage of anything calculated to lift their teaching out of the dreariness of word-getting. The fact that most of the schools are attempting to do this by the aid of stereoscopes and stereopticons indicates that other means of visual instruction in geography will be appreciated.

The amount of visual instruction in the industries of the world now given in the schools, and the amount of co-operation in creating an industrial exhibit obtainable from Newark industries should be investigated, and the development of the industrial department of the museum should be adapted to the needs and the opportunities thus developed.

There is, in Newark, a course of study on Newark herself. Pupils are expected to find out for themselves certain things and report upon some of the more obvious results of city government. The pupils of the 6A grade are supposed to visit the library, merely to gain a cursory impression of the building, not to experience its use. The hesitation which they evidently feel in doing this indicates one way in which museum invitations to

children might help to bring about what the school officials want. And some questions brought to the librarians with the request that they provide a book that will answer them, show plainly the need for objective teaching that will lead to the relegation of the textbook to its rightful place. A pupil, for instance, modestly asks for a book answering the question, "Are garbage cans properly emptied in your neighborhood?" Such a course the museum can materially help to make practical.

**Science**

In science, the situation is more difficult. It is true that within the past twenty years interest in nature study as a recreation has increased. It is also true that our industrial prosperity has been created largely by our scientific discoveries and inventions. Yet nature study in many American schools is neglected or perfunctory, except in the rare cases of a teacher or principal enthusiastic on the subject, and there is nothing harder to prove to many parents than that a love of nature or a taste for natural science in their children can be turned to profitable account. Every city contains many business failures, and mediocre professional men, who would have made successful farmers, poultrymen, florists, foresters or chemists had they been able to know and to follow their bents.

The museum should afford a sympathetic centre for the scientific interests of the community, and serve these interests by the exhibition and circulation of specimens, and by fostering field work, collections and laboratory work among both old and young. The Children's Museum of Brooklyn has sent out a number of

expert wireless telegraphers, and counts tree-planting clubs as indirect results of its work with children.

Whatever is done in any department must be a growth. For some years, probably, only those children will be made aware of what is offered in nature study whose teachers or parents have a taste for the subject.

There are many pupils graduated from the elementary schools, who have never visited the library, and who cannot find an article in an encyclopædia. Much more will this be the case with the museum. Few fourteen-year-old children have ever seen any statue other than those in our parks and in their own churches.

Now, growth is necessarily slow. The vital matter is not how far we have progressed, but are we progressing?

Some places are in advance of us; but there is no evidence that there is any American city where every child knows how to look for information in a book of reference, how to visit the public library, the museum and the public parks with profit, and what are the chief points of interest in his city. Something of all this is done everywhere; perhaps not all of it anywhere.

Newark has made a good start in at least two of these directions: A considerable percentage of her children use the library, for pleasure, and she has a course of study upon the city, fully developed on paper and somewhat carried out in fact. It will be evident that to aid her in the other matters the task will be, not to develop the museum arbitrarily along prearranged lines, but to allow latitude, so that it may grow to meet, as well as to create, demand.

In earlier pages, the work of the docent may seem

to have been belittled. The museum of the future will develop the docent's work to a degree thus far unimagined. Some of the work now done by the docent will be rendered unnecessary by better methods of display and of labeling, but many new values will be found in it.

For example, many children have never seen a statue of the nude. Some of these children, carefully drilled for twelve or fourteen years out of innocence into modesty, or, alas! into vulgarity, when they enter the little Newark sculpture hall have a shock which is often painful, and generally forbids the natural enjoyment of the beauty they find there. Newcomers, therefore, are held in a group outside the door and given a few minutes' preparation. They are told of the relation of dress to climate and custom; the variations of costume for sea bathing and athletics, are cited; the beauty of the human form is mentioned, and the studies made of it by those who wish to follow such trades as that of costume designing. They are asked to note the woodenness of the Assyrian figures, the conventionality of the Egyptian, and the beauty of the Greek. They are prepared for the whiteness of the casts by being told of the difference between an original and a reproduction.

The children, thus prepared, feel less embarrassment over the exhibit.

Quite as definite a preparation is needed that the mineral collection may be seen by children to any profit. Lessons for adults will, of course, be developed in other ways. We hope to get enlightenment and assistance from the New York Museum instructors, although our problem, which is how to get the most nourishment out of a little display, is very different from theirs.

### Specific Suggestions for These Museums

The specific measures and sequences by which these general suggestions may be achieved afford a considerable latitude of judgment. The following is but one of many possible plans.

### Children's Room

Put about a thousand dollars into a small Children's Room. Have there startling, wonderful, unusual and beautiful things, such as albinos, peacocks, sponge corals, a split nautilus shell, aquaria fed by fountains, an aviary, and a bee hive. Select and arrange chiefly to attract admiration and astonishment. This would be the striking feature of the years' work. Complete it promptly, and advertise it extensively.

### Habitat Group

Spend about five hundred dollars in the preparation of a habitat group of New Jersey birds likely soon to disappear. Have the habitat cunningly arranged to melt from reproduced plant and flower, as marsh mallow and grass, into a painted background, as in the habitat groups at the Museum of Natural History. Put this group in the hall of the first floor.

The aim in preparing this group is two-fold: to advertise the museum, and to inspire interest in preserving the memory of the life forms now passing from the neighborhood of Newark. This group would, perhaps, suggest to people the giving of money for the preparation of other similar groups.

These two things would constitute a spectacular display, which would engage the interest of the city and

cause citizens generally, and subscribers in particular, to realize that the museum is alive.

### Educational Work

Meanwhile, bend the best energies of the corps to the more serious work of inaugurating an instructive museum.

### Minerals

Arrange material from Dr. Disbrow's ample supplies in mineralogy in developmental or industrial series, as from peat to coal, from coquina to marble, from mud to slate, etc. Accompany these series with charts containing mounted pictures, and with a list of books. Near these exhibits, available for reference, place a few books on tables. Each display should be simply and explicitly labeled.

### Sculpture

Cause to be printed leaflets treating in simple English of the subjects shown in the sculpture room, and place outside the door of this room an automatic stereopticon, showing carefully selected sets of slides with brief accompanying labels, giving units of instruction upon sculpture. This is to give those who have no other opportunity for appreciative observation of sculpture (and they are the majority of Newark's population) a chance, first, to feel the aesthetic emotions properly produced by sculpture, and, then, to reinforce this feeling by knowledge of the great statues of the world. The feeling gained from the casts should carry over to the reproductions displayed and discussed in the slides. In the sculpture room should be a full set of stereo-

graphs and several stereoscopes on a table surrounded by chairs arranged for the free use of visitors.

**Nature and Science Room**

Place in the northeast room on the third floor the beginnings of several allied, science, applied art and industry exhibits, as follows:

Animal Exhibits

A. The Bee
   - A hive of bees
   - Models of wax
   - Enlarged models of bees
   - Specimens of wax and honey
   - A life history of the bee
   - Bee pictures and statistics in charts
   - A list of literary, scientific, and economic treatments of bees to be had in the library
   - A few books and pamphlets placed conveniently for use near the exhibit
   - The bee in art—exemplifications of the use of the bee as a motif in decoration

B. Birds
   - A case containing many pictures of birds for lending, with notes attached:—"Notice, etc."
   - A case containing single birds labeled only with numbers, not names, and accompanied by cards whereon students may write the names, and then, getting a "key card," test themselves for correctness in naming
   - A case containing specimens of bird types, such as waders, hoppers, runners, birds of prey, etc., the classification being popular rather than scientific. These specimens to be lent to schools and classes for intensive study
   - Bibliography, books, slides, stereographs, as for bees

The bird in art
As soon as it can be afforded, some moving pictures on bird life

C. Insects
Life histories of noxious and of beneficial insects

D. Fish
A treatment as similar as possible to the foregoing
An aquarium

## Industrial Exhibits

A. Pottery—the process
Raw materials
The casting process, the wheel process, plate making, hand built pottery, and glaze

B. Pottery—the history

C. Textiles
Spinning and weaving, processes and history
Materials
Wool
Geographic distribution
Animals from which obtained
Care of animals
Processes of preparing wool
Fibres
Cotton
Treatment similar to that of wool
Silk, flax, other fibres
Methods
Felting, weaving, netting, knitting
Spinning, by distaff and spindle, by wheels
Weaving
Navajo loom, hand looms, horizontal and vertical, tapestry loom, and modern machinery

Classification of textiles
Brocades, velvets, damasks, etc., of various periods and places
Tapestries, decorations
Carpets
Embroideries
Stamped and printed textiles
Modern decorative textiles
Practical investigations
Fillings with sizing and clay
Weighting
Imitations
How to judge and test
Standard cloths
Labels, guarantees and laws
Budgets of clothing, as: What girls should wear to school; what a business woman should wear, etc.
Hygiene of clothing
Colors and dyes
Handwork of modern women, as: Colonial period (restrained type); Victorian period (exuberant type); Present day period (consciously artistic type)

D. Basketry
Evolution of basket from gourd
Evolution of pottery from basketry
Types of basketry
Color in basketry
Forms and designs
Uses
Symbolism

Exhibits of Habitations of Man

A. Prehistoric
Cave men, lake dwellers, &c.
Parallels in present day examples, of primitive conditions

B. Early historic types
   Villages in Greece, etc.
C. Middle Ages
   Town house
   Castle
D. The new world
   Pioneer conditions, as house in stockade, etc.
   The house of to-day
E. Occupations and art of men in the various stages indicated by the houses exemplified.

### Botany

Nothing has been said of botany. The museum owns a considerable and interesting collection of woods, the gift of Governor Murphy, and Dr. Disbrow has many specimens of useful plants and a large herbarium. As in years past, so in the future the annual exhibit of budding tree branches provided by the Park Commission will probably be shown in the Children's Room. It will be easy to duplicate this in the branch libraries and to continue it in a display of flowers, both wild and cultivated, as they bloom, giving both scientific and common names, habitats, and the name of the first donor of each species.

### Hygiene, Education, Etc.

Neither has any mention been made of exhibits bearing upon human health, and education. The modern movements in civic betterment, city planning, mosquito extermination, shade tree work, all should be recognized in a department, and material to aid the schools in teaching hygiene and the citizens in furthering civic education would easily fill another room.

Besides the accurate ethnologic models for which

these suggestions provide, there should be historic and geographic scenes, not as small as and less ornate than those shown in the Children's Museum of Brooklyn, which could be shown in branches and lent to schools or classes, made and arranged in portable shape. Such groups should be so simply made that the children would be moved to make similar ones and similar models made by individuals or by groups of children should be given prominence, exhibits being made of them.

### Museum Loans

The Museum publishes a list of articles now on hand which it can lend to schools or classes. To these can be added the reproductions of famous paintings now owned by the Museum, and industrial material, geographic models, birds and bird pictures, insects, insect histories, stereographs and lantern slides, and geographic models as they can be purchased.

### Leading to Other Museums

While this Museum should attempt at once to reach and to teach a few simple things to the very many for whom it will be the only available museum opportunity, it should not neglect the many who might take advantage of the New York museums if they were so directed.

A systematic stimulation of visits to the great galleries and museums across the Hudson could be effected by showing a full line of pictures and reproductions of what these museums display, by offering occasionally personally conducted tours to them, and by referring to their features as fully as is done to the Newark Library books in labels and catalogs. In this system is included the Bronx Zoo and the New York Aquarium.

# Index

# The Educational Value of Museums

## A List of Books and Articles on the Subject, Compiled by the Free Public Library of Newark, N. J. for the Newark Museum Association

*Issued as a Supplement to "The Educational Value of Museums" published by the Museum Association.*

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